



## WORKPLACE SAFETY AND HEALTH IN ALABAMA

*From The  
National Institute for Occupational Safety and Health*



### State Profile 2002

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*Delivering on the Nation's promise:  
Safety and health at work for all people through prevention.*

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#### **The National Institute for Occupational Safety and Health**

NIOSH is the primary federal agency responsible for conducting research and making recommendations for the prevention of work-related illness and injury. NIOSH is located in the Department of Health and Human Services in the Centers for Disease Control and Prevention. The NIOSH mission is to provide national and world leadership to prevent work-related illness, injury, disability, and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services. As part of its mission, NIOSH supports programs in every state to improve the health and safety of workers. NIOSH has developed this document to highlight recent NIOSH programs important to workers and employers in Alabama.

#### **The Burden of Occupational Illness and Injury in Alabama**

- In Alabama, there are approximately 2.1 million individuals employed in the workforce.<sup>1</sup>
- In 2000, 103 workers died as a result of workplace injuries.<sup>2</sup>
- The construction industry had the highest number of fatalities, followed second by manufacturing, and third by transportation and public utilities.<sup>2</sup>
- In 1999, the most recent year for which data are available, the rate of fatal workplace injuries was 5.7 deaths per 100,000 workers – above the national average rate of 4.5 deaths per 100,000 workers.<sup>2</sup>
- In 2000, there were 84,700 nonfatal workplace injuries and illnesses in Alabama.<sup>3</sup>

#### **The Cost of Occupational Injury and Illness in Alabama**

In 2000, the most recent year for which data are available, a total of \$529.2 million was paid for workers' compensation claims by Alabama private insurers and self-insured employers.<sup>4</sup> This figure does not include compensation paid to workers employed by the federal government and also underestimates the total financial burden for private sector businesses, since only a fraction of health care costs and earnings lost through work injuries and illnesses is covered by workers' compensation. Chronic occupational illnesses like cancer are substantially under-reported in workers' compensation systems because work-relatedness is often difficult to establish.

# **How NIOSH Prevents Worker Injuries and Diseases in Alabama**

## **Health Hazard Evaluations (HHEs) and Technical Assistance**

NIOSH evaluates workplace hazards and recommends solutions when requested by employers, workers, or state or federal agencies. Since 1993, NIOSH has responded to 33 requests for HHEs in Alabama in a variety of industrial settings, including the following example:

### ***Huntsville, Alabama: Exposures in Airplane Hangar***

In 2000, NIOSH received a request for an HHE to assess the potential for occupational exposures during aircraft maintenance and inspection in an airplane hangar in Huntsville, Alabama. Employees reported experiencing headache, nausea, fatigue, and congestion during prolonged activities in the hangar. These symptoms would last two to four consecutive days, regardless of the type of work done or the chemicals used. NIOSH investigators recommended installing fans and an exhaust to improve air circulation in the hangar, eliminating hazardous chemicals such as methyl ethyl ketone, updating material safety data sheets, using appropriate procedures for sealing the hangar floor, and utilizing the hangar according to state and local building codes.

## **Fire Fighter Fatality Investigation and Prevention Program**

The purpose of the NIOSH Fire Fighter Fatality Investigation and Prevention Program is to determine factors that cause or contribute to fire fighter deaths suffered in the line of duty. NIOSH uses data from these investigations to generate fatality investigation reports and a database of case results that guides the development of prevention and intervention activities. Since 1997, there have been six fire fighter fatality investigations in Alabama, including the following example:

### ***Alabama: Captain Dies at the Scene of a Structure Fire***

On July 4, 1999, a 52-year-old male volunteer captain responded to a fire at a modular home. The victim, acting as the incident commander, was helping fire fighters don and doff their self-contained breathing apparatus as heavy smoke clung to the ground. Soon thereafter, the victim collapsed. The immediate cause of death was myocardial infarction (heart attack). In order to reduce the risk of on-duty heart attacks and cardiac arrests among fire fighters, it is recommended that fire departments minimize physical stress on fire fighters; screen to identify and rehabilitate high-risk individuals; and encourage increased individual physical capacity for fire fighters.

## **Building State Capacity**

### ***State-Based Surveillance***

NIOSH funds the Adult Blood Lead Epidemiology and Surveillance Program (ABLES) in the Alabama Department of Public Health. Through ABLES, the agency's staff track and respond to cases of excessive lead exposure in adults which can cause a variety of adverse health outcomes such as kidney or nervous system damage and potential infertility.

### ***The Alabama Education and Research Center (ERC)***

This ERC, one of 16 NIOSH ERCs nationwide, is based at the University of Alabama at Birmingham School of Public Health. It provides post-graduate academic and research training in industrial hygiene, occupational health nursing, occupational safety, and occupational medicine. Training in hazardous waste activities, continuing education classes, and outreach programs also are provided. In fiscal year 2001, 62 students were

enrolled and 21 students were graduated. Sixty-three continuing education courses were conducted for 1,567 trainees.

### ***University of North Alabama***

In fiscal year 2001, an undergraduate degree in industrial hygiene and a dual degree in industrial hygiene and chemistry were offered through NIOSH funding. In fiscal year 2001, 17 students were enrolled and six students were graduated.

### **Extramural Programs Funded by NIOSH**

The following are examples of recent research contracts, research grants, training grants, or cooperative agreements funded by NIOSH in the state of Alabama.

#### ***Evaluation of Air Samples with Field Analysis for Lead***

Researchers at the University of Alabama want to examine whether an improved portable X-Ray Fluorescence (XRF) analyzer will detect lead in air accurately enough to determine workers' exposure in relation to the U.S. Occupational Safety and Health Administration's Permissible Exposure Limit, or other similar limit values. In addition, this project will determine the most appropriate inhalable sampler to be used with on-site XRF analysis of exposure to inorganic lead dust.

#### ***Effectiveness of Farm Safety Day Camps for Children***

Farm safety day camps are offered in many communities to teach children safe play and age-appropriate work on farms but the camps' effectiveness has not been evaluated. This project by the Institute for Social Science Research will evaluate the "Progressive Farmer" Farm Safety Day Camp Program, offering approximately 250 camps in 37 states. Outcomes will be evaluated using a sample of 30 camps and surrounding communities to assess farm-related injuries and knowledge, beliefs, attitudes, and behaviors of children, ages 8-13, who attend day camps compared to children in the same communities who do not attend camps.

#### ***Extended Work Schedules and Health Outcomes***

The primary goal of this project by the University of Alabama is to evaluate the association between exposure to extended work schedules and various health effects, including occupational and non-occupational injury; incident and recurrent psychiatric disorders; and incident and recurrent ischemic heart disease.

*Additional information regarding NIOSH services and activities can be accessed through the NIOSH home page at <http://www.cdc.gov/niosh/homepage.html> or by calling the NIOSH 800-number at 1-800-356-NIOSH (1-800-356-4674).*

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<sup>1</sup>U.S. Department of Labor (DOL), Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics, Current Population Survey, 2000.

<sup>2</sup>DOL, BLS in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1999-2000.

<sup>3</sup>DOL, BLS in cooperation with participating state agencies, Survey of Occupational Injuries and Illnesses, 2000.

<sup>4</sup>National Academy of Social Insurance, *Workers' Compensation: Benefits, Coverage, and Costs, 2000 New Estimates*, May 2002.

